

**Application No.: 10/705,232**

**REMARKS**

This amendment is filed in response to the Office Action dated August 23, 2005. In view of this amendment, this application should be allowed and the case passed to issue.

No new matter is introduced by this amendment. The amendment to claim 51 merely corrects an informality.

Claims 1-76 are pending in this application. Claims 1-28, 36-42, 50, 51, and 67-76 are withdrawn pursuant to a restriction requirement. Claims 29-35, 43-49, 52-59, and 66 are rejected. Claim 51 has been amended in this response.

***Interview Summary***

The Examiner is thanked for the courtesy of conducting a telephonic interview with the undersigned on November 15, 2005. The undersigned requested rejoinder and examination of the withdrawn claims. The Examiner further explained why the claims were restricted. The Examiner's helpful explanation is greatly appreciated. The undersigned indicated that he would present the arguments for rejoinder in this response.

***Allowable Subject Matter***

Claims 60-65 have been allowed. Applicant gratefully acknowledges the indication of allowable subject matter.

***Restriction***

Applicant respectfully traverses the restriction requirement. According to MPEP § 803, "[i]f the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions." The comprehensive search of the elected group would have necessarily included classes and subclasses containing the unelected groups. Applicant submits that examination of

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all the claims on the merits would not impose a serious burden on the Examiner, and requests rejoinder, examination, and allowance of the withdrawn claims.

For example, independent claims 1 and 9 are similar to allowed claims 1 and 58, respectively, of U.S. Patent No. 6,527,221 (the '221 patent). Claims 1 and 58 of the patent are generic to claims 1 and 9 of the instant application, respectively, as the patent claims differ because they recite a "fluid" and application claims recite a "gas." Further, Applicant is concurrently filing a terminal disclaimer under 37 C.F.R. § 1.321 in view of the '221 patent. Therefore, claims 1-22 of the instant application should be rejoined, examined, and allowed. As regards independent claims 36 and 50 of the instant application, it is noted that claims directed to a method of steering a body, such as claim 36, were examined and allowed in the '221 patent. Likewise, as regards claim 28 of the instant application, claims directed to an apparatus on a body moving through a fluid, such as claim 56, were examined and allowed in the '221 patent. Thus, Applicant submits that it would not impose a serious burden on the Examiner to rejoin and examine the withdrawn claims.

***Obviousness Double Patenting***

Claims 29-35, 43-49, 52-59, and 66 were rejected under the judicially created doctrine of obviousness double patenting as being unpatentable over claims 29, 31-35, 38, and 71 of U.S. Patent No. 6,527,221. This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested.

A terminal disclaimer is being concurrently filed in a separate paper to overcome the above rejection.

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***Claim Rejections Under 35 U.S.C. § 102***

Claims 52 and 59 were rejected under 35 U.S.C. § 102(b) as being anticipated by Schoppe (U.S. Pat. No. 3,620,484). This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested. The following is a comparison between the invention, as claimed, and the cited prior art.

An aspect of this invention, per claim 52, is a method of decreasing drag of a body passing along a direction through a fluid comprising the steps of emitting energy through an aerodynamic window along an extended path in the fluid. The fluid is heated along the path to decrease the density of fluid around the path and to form a volume of heated fluid expanding outwardly from the path. The path is directed parallel to the direction the body passes through the fluid. The body passes through the volume of decreased-density heated fluid and the reduction of density of the fluid decreases the drag on the body. The heating of the fluid at different points along the path occurs simultaneously.

The Examiner asserted that Schoppe et al. disclose the claimed method including the steps of igniting hydrogen gas to emit heat and light along a short linear path from the point of ignition to the body. Once ignition had commenced the air adjacent the path of the burning hydrogen would be heated substantially simultaneously, and that the slipstream would direct the path of the heated air rearwardly and parallel to the direction of travel of the body.

Schoppe et al., however, do not anticipate the claimed method of decreasing drag of a body passing along a direction through the fluid because Schoppe et al. do not disclose the step of emitting energy through an aerodynamic window along an extended path in the fluid, as required by claim 52. An aerodynamic window is disclosed in the specification in paragraphs

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[0082] and [0083]. As explained in the specification, an aerodynamic window can separate two distinct cavities, each at its own distinct pressure, with a stream of gas.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the disclosure in a single reference of each element of a claimed invention. *Helifix Ltd. v. Blok-Lok Ltd.*, 208 F.3d 1339, 54 USPQ2d 1299 (Fed. Cir. 2000); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994); *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 399, 36 USPQ2d 1101 (Fed. Cir. 1995); *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). Because Schoppe et al. do not disclose emitting energy through an aerodynamic window along an extended path in the fluid, as required by claim 52, Schoppe et al. do not anticipate claim 52.

Applicant further submits that Schoppe et al. do not suggest the claimed method of decreasing drag of a body passing along a direction through a fluid.

Dependent claim 59 is allowable for at least the same reasons as independent claim 52 and further distinguish the claimed method.

In view of the above amendment and remarks, Applicant submits that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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